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| FORM PTO-1390<br>U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  |   | ATTORNEY DOCKET NUMBER<br><b>UPN-4566</b>  |
| TRANSMITTAL LETTER TO THE UNITED STATES<br>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br>CONCERNING A FILING UNDER 35 U.S.C. 371      |   | U.S. APPLICATION NO. (if known see 37 CFR 1.5)<br><b>10/538,361</b>  |
| INTERNATIONAL APPLICATION NO.<br><b>PCT/US2003/039714</b>   | INTERNATIONAL FILING DATE<br><b>12 December 2003 (12.12.2003)</b> | PRIORITY DATE CLAIMED<br><b>13 December 2002 (13.12.2002)</b>  |
| TITLE OF INVENTION <b>PRACTICAL PULSE SYNTHESIS VIA THE DISCRETE INVERSE SCATTERING TRANSFORM</b>                               |   |  |
| APPLICANT(S) FOR DO/EO/US <b>Charles L. EPSTEIN and Jeremy MAGLAND</b>  |   |  |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: |   |  |
| 1.  | <input type="checkbox"/>  | This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.  |
| 2.  | <input checked="" type="checkbox"/>                               | This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.  |
| 3.  | <input type="checkbox"/>  | This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9), and (21) indicated below. |
| 4.  | <input type="checkbox"/>  | The US has been elected (Article 31).  |
| 5.  | <input type="checkbox"/>  | A copy of the International Application as filed (35 U.S.C. 371(c)(2)).  |
|   | a. <input type="checkbox"/>                                       | is attached hereto (required only if not communicated by the International Bureau).  |
|   | b. <input type="checkbox"/>                                       | has been communicated by the International Bureau.   |
|   | c. <input type="checkbox"/>                                       | is not required, as the application was filed in the United States Receiving Office (RO/US).   |
| 6.  | <input type="checkbox"/>  | An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).   |
|   | a. <input type="checkbox"/>                                       | is attached hereto.  |
|   | b. <input type="checkbox"/>                                       | has been previously submitted under 35 U.S.C. 154(d)(4).   |
| 7.  | <input type="checkbox"/>  | Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).  |
|   | a. <input type="checkbox"/>                                       | are attached hereto (required only if not communicated by the International Bureau).   |
|   | b. <input type="checkbox"/>                                       | have been communicated by the International Bureau.  |
|   | c. <input type="checkbox"/>                                       | have not been made; however, the time limit for making such amendments has NOT expired.  |
|   | d. <input type="checkbox"/>                                       | have not been made and will not be made.   |
| 8.  | <input type="checkbox"/>  | An English translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).   |
| 9.  | <input checked="" type="checkbox"/>                               | An oath or declaration of the inventor(s) 35 U.S.C. 371(c)(4).   |
| 10.   | <input type="checkbox"/>  | An English translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).                              |
| Items 11. to 20. below concern other document(s) or information included:   |   |  |
| 11.   | <input type="checkbox"/>  | An Information Disclosure Statement under 37 CFR 1.97 and 1.98.  |
| 12.   | <input type="checkbox"/>  | An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.  |
| 13.   | <input type="checkbox"/>  | A preliminary amendment.   |
| 14.   | <input type="checkbox"/>  | An Application Data Sheet under 37 CFR 1.76.   |
| 15.   | <input type="checkbox"/>  | A substitute specification.  |
| 16.   | <input type="checkbox"/>  | A power of attorney and/or change of address letter.   |
| 17.   | <input type="checkbox"/>  | A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.182-1.825.   |
| 18.   | <input type="checkbox"/>  | A second copy of the published international application under 35 U.S.C. 154(d)(4).  |
| 19.   | <input type="checkbox"/>  | A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).  |
| 20.   | <input checked="" type="checkbox"/>                               | Other items or information:<br>- <b>Communication;</b><br>- <b>a return postcard.</b>  |

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Date of Deposit: October 20, 2005

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|  |              |   |                |   |    |
|--|--------------|---|----------------|---|----|
| U.S. APPLICATION NO. (if known 37 C.F.R. 1.5)<br><b>10/538,361</b>   |              | INTERNATIONAL APPLICATION NO.<br><b>PCT/US2003/039714</b>                     |                | ATTORNEY DOCKET NUMBER<br><b>UPN-4566</b> |    |
| The following fees are submitted:  |              |   |                |   |    |
| 21. <input type="checkbox"/> Basic national fee (37 CFR 1.492(a))  |              | <b>\$300</b>  |                | \$  |    |
| 22. <input type="checkbox"/> Examination fee (37 CFR 1.492(c))   |              |   |                | \$  |    |
| If written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)   |              | <b>\$0.00</b>   |                | \$  |    |
| All other situations   |              | <b>\$200</b>  |                |   |    |
| 23. <input type="checkbox"/> Search fee (37 CFR 1.492(b))  |              |   |                |   |    |
| If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)  |              | <b>\$0</b>  |                |   |    |
| Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority  |              | <b>\$100</b>  |                | \$  |    |
| International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB   |              | <b>\$400</b>  |                |   |    |
| All other situations   |              | <b>\$500</b>  |                |   |    |
| <b>TOTAL of 21, 22 and 23 =</b>  |              |   |                | \$  |    |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing filed in electronic medium) (37 CFR 1.492(j)).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof. |              |   |                |   |    |
| Total Sheets   | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE           |   |    |
| - 100 =  | /50=         |   | <b>X \$250</b> | \$  |    |
| Surcharge of <b>\$130.00</b> for furnishing any of the search fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).  |              |   |                | <b>\$130.00</b>                           |    |
| Claims   | Number Filed | Number Extra  | Rate           |   |    |
| Total claims   | - 20 =       |   | <b>X \$50</b>  | \$  |    |
| Independent Claims   | - 3 =        |   | <b>X \$200</b> | \$  |    |
| Multiple dependent claims(s) (if applicable)   |              |   | <b>+ \$360</b> | \$  |    |
| <b>TOTAL OF ABOVE CALCULATIONS =</b>   |              |   |                | \$  |    |
| <input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.  |              |   |                | <b>\$65.00</b>                            |    |
| <b>SUBTOTAL =</b>  |              |   |                | <b>\$65.00</b>                            |    |
| Processing fee of <b>\$130.00</b> for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).   |              |   |                | \$  |    |
| <b>TOTAL NATIONAL FEE =</b>  |              |   |                | <b>\$65.00</b>                            |    |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). <b>\$40.00</b> per property +  |              |   |                |   |    |
| <b>TOTAL FEES ENCLOSED =</b>   |              |   |                | <b>\$65.00</b>                            |    |
|  |              |   |                | Amount to be: refunded                    | \$ |
|  |              |   |                | Amount to be charged                      | \$ |

10/26/2005 GFREY1 00000131 10538361

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- a. ☒ A check in the amount of **\$65.00** to cover the above fee is enclosed.
- b. ☐ Please charge my Deposit Account No. 23-3050 in the amount of \$ \_\_\_\_\_ to cover the above fees. A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 23-3050. A duplicate copy of this sheet is enclosed.

**NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:

**John W. Caldwell**  
Woodcock Washburn LLP  
One Liberty Place - 46th Floor  
Philadelphia, PA 19103  
(215) 568-3100

SIGNATURE

**John W. Caldwell**  
NAME

**28,937**  
REGISTRATION NUMBER

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In Re Application of:** Charles L. EPSTEIN and Jeremy MAGLAND

**U.S. Serial No.:** 10/538,361

**Group Art Unit:** not yet known

**International Application No.:** PCT/US2003/039714    **Examiner:** not yet assigned

**International Filing Date:** 12 December 2003

**For:** PRACTICAL PULSE SYNTHESIS VIA THE DISCRETE INVERSE SCATTERING TRANSFORM

**COMMUNICATION**

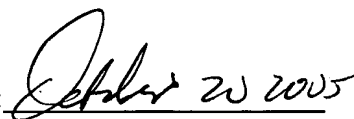
Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

The above-identified application was filed without an executed Declaration/Power of Attorney. Although no "Notification of Missing Requirements" has been received, applicant herewith submits the executed copy along with the required surcharge of \$65.00 under 37 CFR 1.16(e).

Respectfully submitted,

Date:

 20 2005

  
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Registration No. 28,937

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